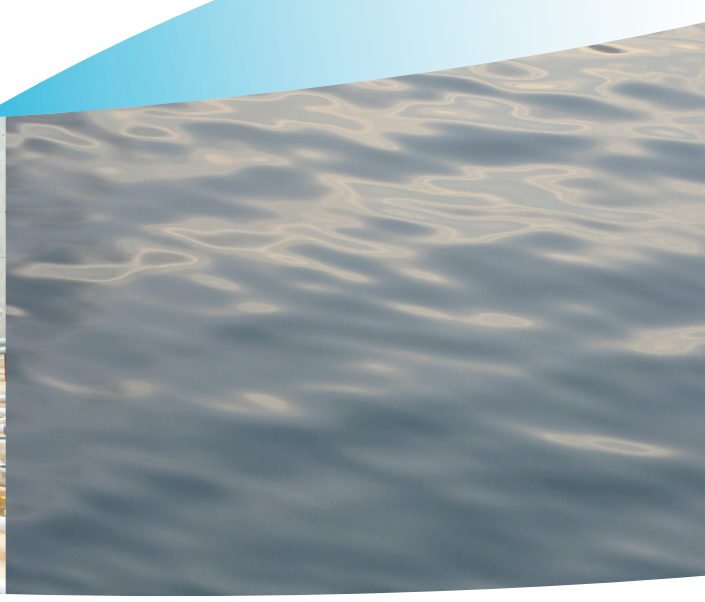
evoqua
WATER TECHNOLOGIES



GOFLO™ CONTINUOUS FILL BATCH REACTOR (CFBR) WITH JET TECH TECHNOLOGY

PROVEN COST-EFFECTIVE WASTEWATER TREATMENT

Proven Experience & Performance

Evoqua's SBR systems with Jet Tech technology turn wastewater treatment challenges into cost-effective, energy efficient solutions through simple operation, design flexibility, and our process experts' collaborative approach.

Evoqua's GoFlo™ Continuous Fill Batch Reactor (CFBR) is an efficient, simple to operate process designed to take the complexity out of wastewater treatment. Compared to conventional activated sludge plants, Evoqua's CFBR accomplishes equalization, aeration, and clarification in a single reactor basin. A single cycle for each reactor consists of three discrete periods; Aerated Fill, Filled Settle, and Filled Decant. Influent flow is distributed evenly among the basins to ensure uniform process conditions and minimize automation.

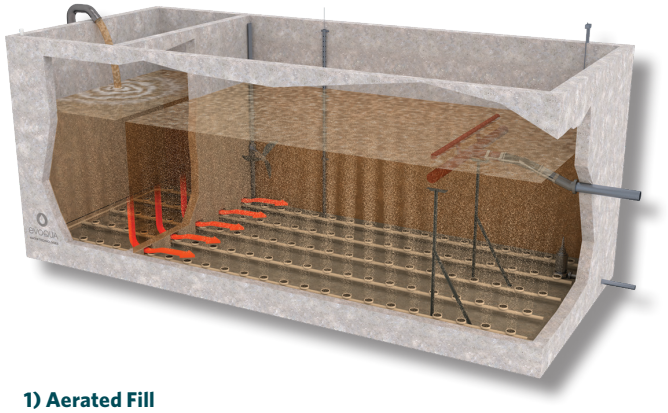
The GoFlo™ CFBR system is ideally suited for treating flows with less stringent effluent requirements from 25,000 gallons per day (GPD) to tens of millions of GPD, with storm flows up to five times the design flow. The retrofit of existing tanks is available.

Features & Benefits

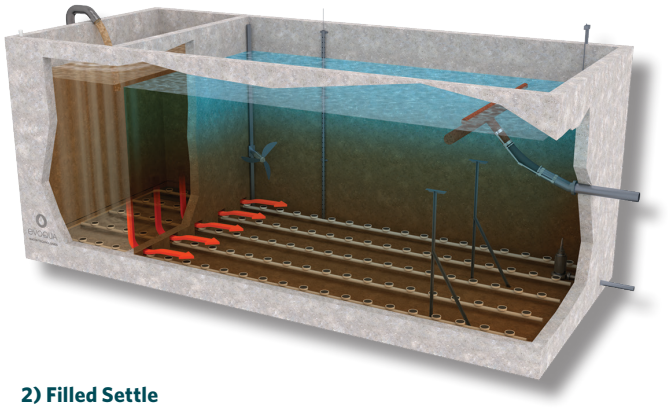
- Biological Nutrient Removal (BNR) option available
- Uniform influent distribution
- Submerged, Scum-Free Decanter
- High quality effluent with storm flows up to five times the design flow
- No need for clarifiers
- Simple automated controls
- Low capital and operation cost

Simple Cyclic Operation Eliminates Clarifiers, RAS Pumps, Recycle Pumps, and Yard Piping

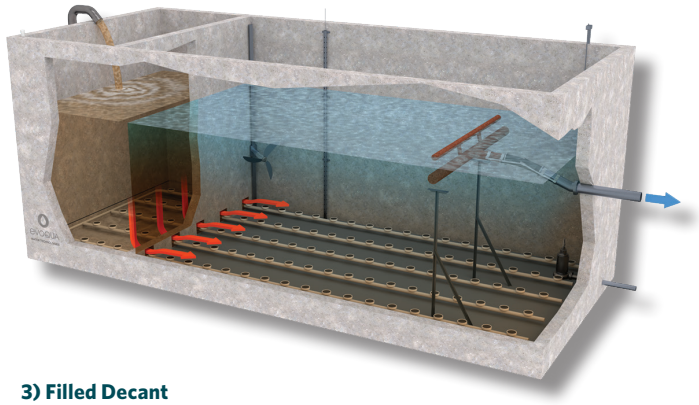
A single cycle for each reactor consists of three discrete periods; Aerated Fill, Filled Settle, and Filled Decant.



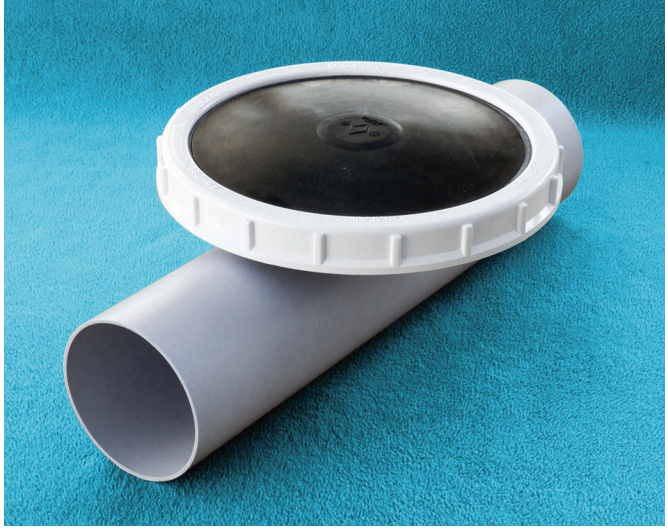
1) Aerated Fill
Screened influent flows continuously and equally to each reactor to ensure uniform process conditions and minimize automation



2) Filled Settle
Aeration and mixing are turned off to allow the biomass to settle, leaving the treated supernatant above



3) Filled Decant
Effluent is removed from just below the liquid surface by Evoqua's Floating Solids Excluding Decanter



The MonoAir™ single-pod diffuser with a Diamond™ S membrane provides high oxygen transfer efficiency and significant energy savings

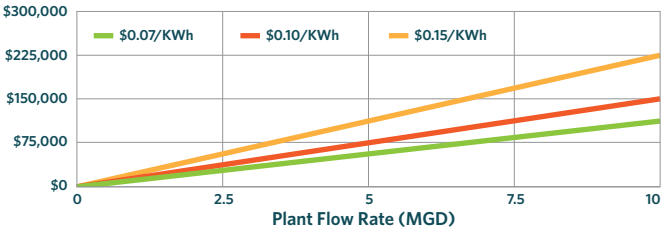
Evoqua decanters are constructed of high quality, durable, corrosion resistant materials, and features a simple, external, manual override

Industry Leading Energy Efficient Fine Bubble Diffusers

The MonoAir™ single pod diffuser system utilizes Evoqua's industry leading Diamond™ S Plus membrane diffuser providing higher oxygen transfer efficiency versus similar diffusers for significant energy savings for maximum performance.

The Present Value (PV) of energy savings for a 1.0 MGD facility with a 10 year membrane life is $7,000 to $10,000 (depending on cleaning frequency) at $0.07 kWh, and $14,000 to $20,000 at $0.15 kWh. A 5 MGD plant saves five times more, as shown below.

Diamond S Plus Cost Savings - 10 year Operation
(Present Value (PV) at a Seven Percent Discount Rate)



Redmond Engineering confirmed through rigorous testing that Diamond S diffusers are at least five percent more efficient than other 9" membrane diffuses. This equates to significant energy savings over the life of the diffuser.

Floating Solids Excluding Decanter

Evoqua's floating solids excluding decanter is the only true solids excluding decanter in the industry that does not utilize electro-mechanical equipment in the basin. This state-of-the-art design utilizes multiple orifices to keep velocities at a minimum, and pulls treated effluent from below the surface to eliminate the possibility of entraining floatables.

The effluent withdrawal is typically 18"- 24" beneath the water surface, therefore preventing the entrainment of surface scum, floating debris and foam.

Evoqua Decanter Advantages

- Innovative designs, engineered specifically for each project
- Simple safe operation for decades
- No in-basin electromechanical devices requiring maintenance
- The actuating valve is located outside the basin at ground level for year-round ease of access and maintenance
- Consistent quality performance
- Over 10,000 plant years of reliable operating experience

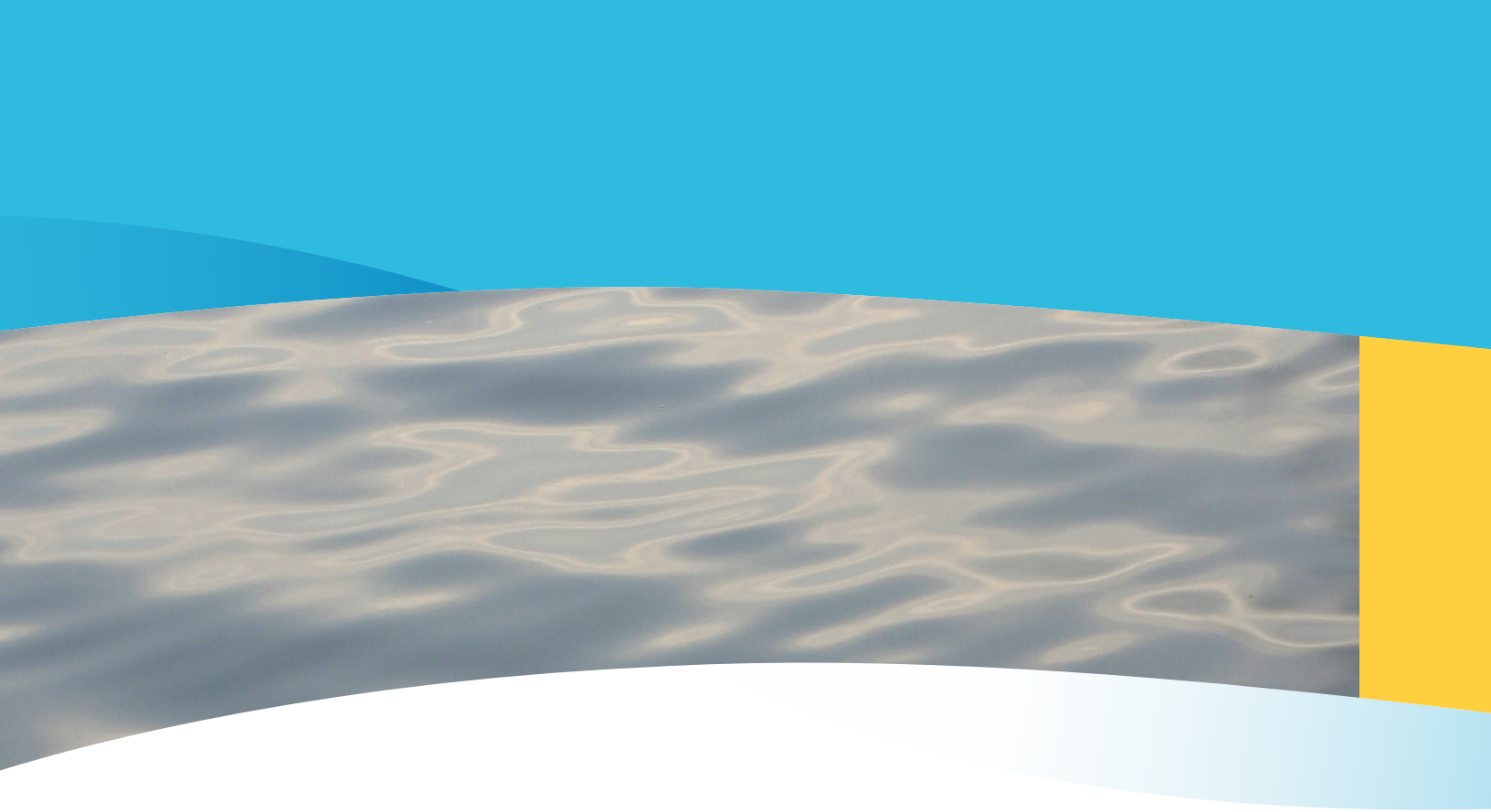
Simple Operation for Superior Results

Evoqua's advanced control system features a PLC with a simple to operate interface. When a large enough flow rate is detected the system automatically enters the storm flow mode. The treatment cycle speeds up in order to process the rain flows, then returns to normal mode when the influent flow decreases. The GoFlo™ CFBR controls also monitor equipment operation and will alarm to alert the operator in the event of failure.

Many Footprints. One Clear Result.

Evoqua's SBR systems with Jet Tech technology turn wastewater treatment challenges into cost-effective, energy efficient solutions through simple operation, design flexibility, and the expertise of our biological process experts.

Evoqua offers municipalities and industries a range of SBR systems, from the large capacity OMNIFLO® SBR to the more compact OMNIPAC® SBR field-erected treatment plant. From widely varying flows to retrofitting existing basins, our technology and collaborative approach provides exceptional flexibility.



700 SUCCESSFUL SBR INSTALLATIONS & COUNTING

Evoqua's SBR systems with Jet Tech technology have helped municipalities and industries overcome wastewater challenges for over 35 years including 700 successful installations. Today, Evoqua's OMNIFLO® and OMNIPAC® SBR systems are successfully treating wastewater in plants ranging from 0.01 MGD to 60 MGD. The design flexibility empowers engineers. The simplicity of operation puts operators at ease. Over 700 satisfied customers is just the beginning. For more information, visit www.evoqua.com/jettech

Jet Tech
an EVOQUA brand

EVOQUA
WATER TECHNOLOGIES

42607 N. Grandview Blvd, Suite 130, Waukesha, Wisconsin 53188

+1 (866) 926-8420 (toll-free) **+1 (978) 614-7233** (toll) **www.evoqua.com/jettech**